

# MOBILE BARRIER TRAILER MBT-1

## REVISION REGISTER

Revision	Description	Date
1	Issued for use.	21/08/2018

The Mobile Barrier Trailer MBT-1 is a rigid steel wall safety barrier, connected to a prime mover in a semi-trailer configuration, which may be used to provide mobile safety and work environments for personnel at maintenance and construction sites.

The Mobile Barrier Trailer MBT-1 is accepted for as crashworthy by Main Roads, in accordance with the details of this document.

### Other Main Roads Requirements:

Main Roads applies requirements and conditions for use of the Mobile Barrier Trailer MBT-1 on the road network including:

The operator of the vehicle will need to obtain special purpose vehicle permits through [Main Roads Heavy Vehicle Service](#).

Permits will need to cover the proposed configurations of the truck, including variations of 1-3 units of barrier section/trailer components.

Operators must plan routes to avoid over-length or over-weight non-compliance whilst transporting this vehicle.

Operators must comply with Main Roads requirements for [Temporary Traffic Management](#) prior to deployment.

### Identification Photographs:



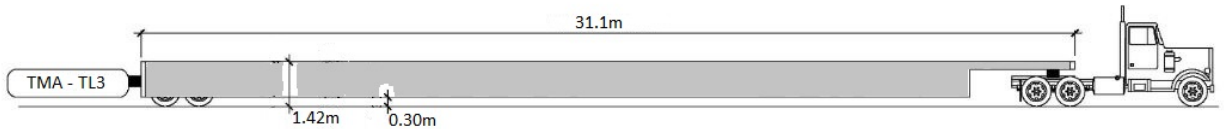
Note: Screen attached to steel wall barrier (as shown in this photo) is not accepted.

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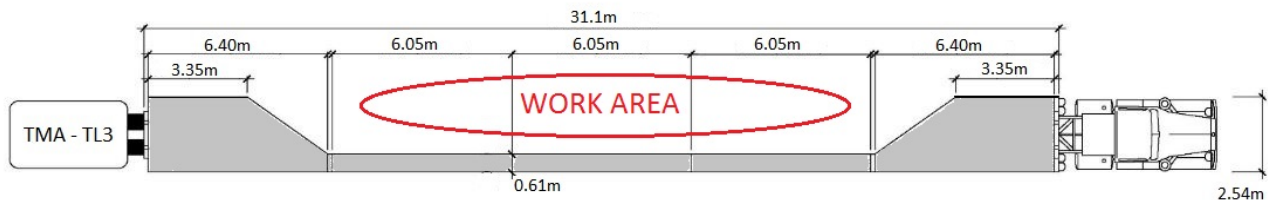


## Drawings:

BASIC CONFIGURATION: ELEVATION



BASIC CONFIGURATION: PLAN



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## **MOBILE BARRIER TRAILER MBT-1**

### **Test Level:**

Tested in accordance with MASH to TL3 (2,270kg at 100km/h and 25°).

### **Configuration:**

The Mobile Barrier Trailer MBT-1 consists of a solid steel wall barrier that is mounted on a trailer, connected to a prime mover and driven into location to Shield a temporary workzone.

The steel wall barrier has a nominal top height of 1.42m.

The Mobile Barrier Trailer MBT-1 may be used with up to three steel wall barrier sections – with an overall trailer length of 31.1m and a workzone length of 24.5m. If fewer than three steel barrier sections are used then a shorter workzone length is provided.

Unless stated in this document the installation shall be in accordance with the Mobile Barriers MBT-1 Manufacturer Manual (Version 171116). This Manual is only available directly from Mobile Barriers LLC and not from their website.

### **Design Considerations:**

#### **Test Deflection:**

0.61m under MASH TL3 conditions (2,270kg vehicle at 100km/hr and 25° impact angle)

Note that this deflection was measured in a crash test performed under controlled conditions. The mass of the tested article was 29.5 tonnes.

Mobile Barrier Trailer MBT-1 is only accepted for use when the posted speed is a maximum of 80km/h.

At a posted speed of 80km/h, a dynamic deflection of 0.4m shall be used.

At a posted speed of 70km/h or less, a dynamic deflection of 0.3m shall be used.

#### **Working Width:**

Not applicable.

#### **Minimum Length:**

Not applicable.

#### **Approach to barrier:**

The approach to the Mobile Barrier Trailer MBT-1 should be a trafficable running surface at a crossfall of 7% or flatter (i.e. side slope of 1 in 15 or flatter), clear of objects and grade changes to allow an errant vehicle to hit the barrier at an appropriate height.

#### **End Treatments:**

The Mobile Barrier Trailer MBT-1 may only be deployed when an approved TL3 rated truck mounted attenuator is fitted.

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### Limitations:

- Mobile Barrier Trailer MBT-1 is only accepted for use when the posted speed is a maximum of 80km/h.
- The Mobile Barriers MBT-1 was ballasted in the crash test, and thus operators, designers and supervisors of work zones must be cognisant of the ballast when in use to protect a work zone.
- Must not be used without an approved TL3 rated truck mounted attenuator.
- Mobile Barrier Trailer MBT-1 is designed to be set up in a secure environment (a work yard or other secure area) and then driven as set up to the work site.
- Over-length permits may be required depending on the length of the configuration.

### References:

Item	Description
1	System tested on 3 April, 2008 by the Southwest Research Institute to MASH TL3. A copy of this testing can be found on Main Roads file 10/8032.

### Relevant FHWA Approval Letters:

[https://safety.fhwa.dot.gov/roadway\\_dept/countermeasures/reduce\\_crash\\_severity/barriers/pdf/b178.cfm](https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/barriers/pdf/b178.cfm)